Abnormal return, event day, 444–52, 456
Adams, Robert, 132
Advent (organization), 137
Adverse selection problem
in syndication, 258
in universal banking, 402
Age of companies (firms). See also Early-stage
companies; Late-stage firms; Older firms
and financing duration, 192
and IPO-timing study, 371
and staging structure, 187, 198
Age of venture organization
and IPO timing, 390, 396
and percentage of profits as compensation, 98
Agency costs, 174–75
and covenants, 68, 73, 79, 87
and funds selected by investment managers, 71n
mechanisms for mitigation of, 160
and monitoring, 187
and nature of assets, 164
prediction of difficult, 79
and R&D effectiveness, 307
in R&D-intensive firms, 178
and raising capital, 159
in regression analyses, 83
and staging, 171–76, 197, 199
and tangible assets, 193
and venture capitalists remaining on board, 254
Agglomeration economies, 516–17
Aggregate fund-raising results, 39–46
Alternative investments, expected return on,
and venture capital fund-raising, 38
Alternative investments, group specializing in, 233
American Research and Development (ARD), 8
Analysts, and lockup expiration, 456n
“Angels,” 200, 532n
Annual Survey of Manufacturers (ASM), 279
Aperture Partners, 137
Apple Computer, 1
federal support for, 309
staged investment in, 173–74, 200
Xerox investment in, 132
Asset Alternatives, 211, 211n, 522
Asset pricing models, 486–87
Assets, nature of, 187
and agency costs, 175
and amount of financing, 196, 197
and funding duration, 198
and liquidation value, 187
and monitoring, 197
and staging structure, 175, 193
and strategy, 158
Asymmetric information. See Informational
asymmetries
AT&T, 152
Babylon, 7
Bank-affiliated funds, 127, 137
Bank financing, 200
and equity valuations, 224
and venture capital commitments, 28
Base compensation, 101, 104
assumptions used in calculation of, 123–26
Battelle Memorial Institute, 131
Behavioral finance, 485–86
BioScan: The Worldwide Biotech Industry
Reporting Service, 528
Biotechnology and North Carolina Biotechnology Center (NCBC), 242, 528
patent awards in, 528–29
and scale of investment, 165
strategic investments in, 371
and study of board composition, 241–42, 242n
and timing of IPO, 356, 357–58, 369, 371, 374 (see also IPO timing)
BioVenture View, BioPeople of, 243
Blair, D. H., 365
Board membership, 241, 251
avenues for further investigation in, 251, 254
and chief executive officer turnover, 241, 245–49
determinants of, 241–49
and geographic proximity, 166, 241, 249–51
as quasi-insiders, outsiders and insiders, 243, 245, 245n
venture capitalists among, 166
Book-to-market ratio, 222, 420, 487, 489
Boston University, venture-capital effort of, 2–3
Brinson Partners, 381, 385, 531
“Bubble years” (1999–2000), 5
Bureau of Economic Analysis, Department of Commerce, 47, 279
Business cycles, and stock valuation, 224
Business Directory of U.S. Private and Public Companies, 526
Cabot, Walter, 520
California as center of U.S. venture industry, 522
concentration of investment activity in, 7, 14, 47, 222n
and early- vs. later-stage funds, 59
pricing of firms in, 207
SBIR awards to, 320, 323
in SBIR awards analysis, 340
Silicon Valley, 6, 229, 273
size of venture pools in, 230
Capital asset pricing model (CAPM), 500
Capital Changes Reporter, 528
Capital flows. See at Capital inflows
Capital gains tax rates
and contributions to venture industry, 45
and raising of new funds, 55
and venture capital activity, 49, 51
and venture capital fund-raising, 5, 25, 28, 33, 36–37, 42, 57, 62, 63
Capital inflows, and past performance, 350
basic econometric analysis of, 215–23
and basic pricing patterns, 212–15
and decomposition of price movements, 229–31
empirical analysis sample for, 205–12
first difference analysis of, 226–29
and omitted variable bias, 231, 233–36
and question of inflows as exogenous, 236–37, 239
research questions arising from, 239
robustness of results on, 223–26
theoretical considerations on, 204–205
Carlson, Chester, 131
Carried interest, 24, 115, 130, 133
Case Western Reserve University, Center for Regional Economic Issues at, 250
Cash utilization rates, for late-stage firms, 186
Causality problem, in innovation study, 293–304
Center for Regional Economic Issues at Case Western Reserve University, 250
Center for Research in Security Prices (CRSP), 112, 334, 406, 470, 502n
in analysis of IPO performance, 488
daily stock data from, 429
data tapes of, 385
monthly returns from, 476
Certification, 347–48, 349
by banks, 399, 423
through government awards, 315, 316, 317, 317–18, 338, 341, 342
and grandstanding, 396
and lockups, 428
by reputable venture capitalists, 162
Chief executive officer (CEO) turnover and board membership, 241, 245–49
as critical development, 246n
Chiron, 309
Cisco Systems, 152
Cointvestment. See Syndication of investment
Commenda, Italian, 27
Commitment hypothesis on IPO lockups, 424, 427–28, 435, 444, 452, 455
Commitments to venture funds, 25, 40, 42
Compaq, 309
Compensation, 14, 30, 91–92, 114
assumptions used in calculation of, 123–26
controls on, 161–62
and corporate venture funds, 130–31, 150
and covenants, 68, 69
determinants of, 92–97
and distribution policy, 463
and follow-on funds, 397
form of, 97–108
and human capital model, 114–15
learning model of, 30–31, 93–94, 115–19
(see also Learning model of compensation)
for manager vs. entrepreneur (and tax rates), 36
and monitoring, 163
and performance, 69n, 80, 92, 93, 94, 104, 106–108
as price of venture capital services, 67
sensitivity of as related to performance, 108, 111–13
signaling model of, 31, 94–97, 119–23 (see also Signaling model of compensation)
and supply-demand conditions, 81
tension between increasing amount and changing distribution of rewards, 25
timing of, 24–25
unanswered questions on, 115
Compton, Karl, 8
CompuStat, 177, 187, 210, 282–83, 284, 336, 429, 478, 488n, 502n
Conflicts of interest, 6
by investment banks related to venture capital firms, 6, 399–400, 403, 404–405, 410, 414, 416, 421
and naïve investor vs. rational discounting hypothesis, 351–52, 400, 404, 405, 421–22 (see also Naïve investor hypothesis; Rational discounting hypothesis)
and underpricing, 416
and universal banking (1920s), 399, 401–402
in venture capital firms affiliated with investment banks, 351
Contracts. See also Covenants
and contingencies, 159
with entrepreneurs, 162
partnership, 29
state-contingent, 199
and venture capitalists’ distribution of shares, 469
Contractual covenants. See Covenants
Control rights, 162, 348
Convertible securities in venture capital, 348
Corporate governance, influence of venture capitalists on, 162–63
Corporate New Issues database, of SDC, 406
Corporate Technology Directory, 210, 282, 283, 322–23, 326, 335, 526
Corporate venture programs, 127, 150–53
assessment of, 136–50
definition of firm categories for, 153–54
history of, 128–31
puzzles about, 152
strategic fit or focus for, 128, 136, 137, 138, 140, 142, 145, 151
vs. venture capital limited partnerships, 31
Xerox Technology Ventures, 128, 131–36
Costly contracting hypothesis, 66–67, 68n
and covenants about activities of general partners, 78–79
and covenants restricting potential agency problems, 79
and earlier analyses, 90
empirical implications of, 69–70
and regression-analysis results, 85, 87
and time-series pattern, 72
Covenants, 29, 65–66, 87
on activities of general partners, 75–76
and compensation, 115
determinants of, 30, 66–72
on overall fund management, 73–75
and ownership, 66n
regression analyses of, 83–87
and remedy for limited partners, 65
restricting types of investment, 77
study of, 73
univariate comparison of, 77–83
Crisis, organizational, and need for monitoring, 246
CRSP. See Center for Research in Security Prices
Daily Stock Price Record, 406
Data sources, 519
on venture-backed IPOs and distributions, 530–32
on venture capital investments, 525–30
on venture capital partnership agreements, 519–24
Debt, covenants on, 74
Demand for venture capital
and covenants, 29, 30, 67, 80
and short-run shocks, 4
in venture capital fund-raising, 25, 33, 34–35, 45, 46, 62
Index

Department of Health and Human Services (HHS), and SBIR awards, 328
Department of Labor, U.S., 9, 33, 37, 60, 274, 297, 298. See also Prudent man rule of ERISA
Determinants of venture capital fund-raising. See Venture capital fund-raising, determinants of
Developing country capital markets, and impact of fund flows on valuations, 239
Digital Equipment Company, 8, 129
Directory of Leading Private Companies, 526
Directory of Obsolete Securities, 528
Disk drive industry, 165, 193
Distribution of carried interest, 115
Distribution of shares to limited partners (investors), 346–47, 352–53, 459–61, 480–81
and corporate finance literature, 461
framework for analysis of, 467–70
insider trading hypothesis on, 468, 476
and long-run excess returns, 476–80
reasons for, 462–63
sample and summary statistics in analysis of, 464–67
and SEC regulations, 463–64, 466n
sources on, 531
and stock price reaction during event window, 470–76
Distributions, sources of information on, 530–32
Diversification, through syndication, 167, 259–60
Division of profits
80–20 standard for, 68
among general partners, 76
Document Sciences, 136
Documentum, 134–35, 136
Doriot, Georges F., 8
Draper, Gaither, and Anderson, 8
Duration model, 190
Duration of programs, for corporate vs. independent organizations, 145, 147–50
Early- and seed-stage funds, 51
Early-stage companies
difficulty in evaluation of, 172
financing amount for, 164
and opportunistic activities, 69
as venture-capital focus, 164, 171–72, 172
Early-stage financing
duration of, 193
funds specializing in, 107
relative decline in, 178
Early-stage funds, 57, 59–60, 63
Earnings-to-price ratio, 222
East Coast, and early- vs. later-stage funds, 59. See also Massachusetts Eastman Kodak, 137
Efficient market hypothesis, 201
Employment Retirement Income Security Act (ERISA), 8–9
and prudent man rule, 8, 37–38, 45, 60 (see also Prudent man rule of ERISA)
shift in policies on, 28
Entrepreneurial finance function, 17
Entrepreneurial spawning, 163
Entrepreneurs, 6
debt or venture capital financing as choice for, 160
and exiting process, 345 (see also Exiting from capital venture investments; at IPO)
and financing, 157–58
and grandstanding, 397
vs. shareholders, 173
venture capitalists’ concerns over, 199
Equity market values, market-to-book as measure of, 211
ERISA. See Employment Retirement Income Security Act
Ethernet, 131
European nations, lack of public offerings in, 345–46
Event-day abnormal return, 444–52, 456
Excess returns
in Fama-French model, 499
long-run, 410, 476–80
for nonventure capital-backed IPO firms, 509
Exiting from capital venture investments, 345–46. See also IPO(s)
literature on, 347–50
little attention given to, 350
and social welfare, 346
Expected GDP, measuring of, 61–62
Expected return on alternative investments, and venture capital fund-raising, 38
Externalities, positive
and public subsidies, 314, 317, 337
and SBIR awards, 319–20
Fama-French three-factor model, 499, 500, 504, 512
Federal Express, 174, 309
Fees, fixed, 94, 96–97, 101, 104, 123–26. See also Compensation
Financing strategy, choice of, 486
Finding High-Tech Ventures (Manweller), 1
Firm age. See Age of firm
Firm-level analysis, of venture capital fund-raising determinants, 51–60
proxies for, 71
Firms going public. See also IPO(s)
greater amounts of financing for, 164
and staging, 172–73, 196
timing of, 355–56 (see also IPO timing)
in transportation, biotechnology, and medical/health fields, 181
and venture capital funding, 338
Fixed fees (management fees), 94, 96–97, 101, 104, 123–26. See also Compensation
Follow-on funding, 73
and XTV capital structure, 134
Follow-on funds, and compensation, 397
Follow-on offerings, and underpricing, 355
Follow-on partnerships, need to raise, 378
Free cash-flow theory, 176
FoS Index of Corporate Change, 528
Fumbling the Future, 132
Fund focus, 57, 59–60, 79, 81
Fund-raising. See Venture capital fund-raising Funds, in venture capital industry. See Venture capital funds
“Funds of funds.” 24, 520
Future of venture capital cycle, 515–17
GAO, and SBIR program, 322
Gatekeepers, 9–10, 24, 87, 520
funds without, 71
GDP (gross domestic product), measuring of, 61–62
GDP growth, and commitments to venture funds, 45–46
Genentech, 1, 200
General Accounting Office (GAO), 313
General partners
covenants limiting activities of, 66, 75–76
division of profits among, 76
Geographic patterns in concentration of venture capitalists, 229, 241
in SBIR impact, 328–35, 341
in subsidy impact, 316
in valuation, 221
in venture capital inflows, 230
Geographic proximity, and board membership, 166, 241, 249–51
Germany, Neuer Markt of, 346, 349
Glass-Steagall Act (1933), 399, 400, 401, 422
Good, Mary, 2
Government policy, and venture capital sector, 26
Governments around world, venture-capital initiatives by, 6
Government as venture capitalist. See Public subsidization of small firms; Small Business Innovation Research (SBIR) program Grandstanding, 23, 348–49, 351, 377, 378–81, 397
alternative explanations to, 396–97
data set and descriptive statistics in study of, 381–87
length of board service and age at IPO in study of, 390–92
regression results in study of, 387
research on, 397–98
size of next fund and time to next fund in study of, 387–90
and underpricing, 392–94
and venture capitalists’ equity stakes, 394–95
Graphical user interface, 131
Great Depression, 402
Greylock Management Company, 71, 261, 380
GSP (gross state product), growth in, and venture capital activity, 49
Gulf War period, 135
Hall’s Directory of Massachusetts Manufacturers, 282, 283
Haloid Company, 131
Hambrecht and Quist, 72n, 365
Hammurabi, 7
Harvard Management Company, 108, 126, 520, 521, 522
Hazard rate, 190
Heckman sample selection approach, 207, 229, 238
Heckman two-stage model, 55, 56–57
“Herding,” 169
High-technology industries or firms
difficulty in predicting success for, 317
funds specializing in, 107
higher valuations for, 221–22
High-technology industries or firms (cont.)
increases in valuation and venture capital commitments for, 204
and opportunistic activities, 69
public subsidization of (small firms), 309, 313–18
and SBIC, 273
and SBIR awards, 320, 321, 341, 342
and staging structure, 198
U.S. leadership in, 168
as venture capital focus, 140, 164, 171–72, 172, 178, 181
Holding period. See IPO lockups
“Hot-issue” markets, 346, 356n, 464
Human capital model, 114–15
Hummer Winblad Venture Partners, 380
Ibbotson and Associates, 224
IBM, 131, 152
“Impresario hypothesis,” 356n
Inbal initiative, 273
Incentives
alignment of, 161
as important, 32
problems in, 3
Incumbents and entrants, relationship between, 256–57
Individual investors, 18n.6
Industry expertise, and syndication, 262n
Industry groups, definition of, 153–54
Informational asymmetries, 158, 159–60
and distribution of shares to limited partners, 460, 468–69, 473, 481
and government intervention, 313, 314–15
and investment bank investment, 421
and IPO lockups, 424, 427, 428, 435–36, 440, 442, 449, 451, 452
older firms’ reducing of, 381
and private equity funds, 24
in R&D-intensive firms, 178
for small firms, 514
and structure of financing, 173
and syndication, 255, 258
and venture capitalists, 314, 484
Information gaps, 3, 24
alleviation of, 160
and partial exit, 349
Initial public offerings. See IPOs
Innovation, and patent increase, 516
and causality problem, 293–304
challenges of data in study of, 284–85, 287
disbursement data used in study of, 277, 279
firm data used in study of, 279, 281–84
patent data used in study of, 275–77
and question of significance of patents, 304–305
reduced-form regressions in study of, 287, 289–93
“Innovation gap.” 2
Innovative activities, and venture capital, 5–6
Inside knowledge
in exiting from investment, 346
and IPO lockup, 426–27
Insider trading
and distribution of shares, 468, 469, 476, 480–81
and IPO lockup, 423, 439–44
legal, 461
and securities prices, 424, 459
and trading volumes, 480
vs. venture distributions, 467
Insider Trading and Securities Fraud Enforcement Act (1988), 426n
Institutional holdings of equity after IPO, for venture vs. nonventure firms, 513
Institutional investors. See also Pension funds and IPOs, 514
in late 1990s, 17
Intel, 1, 309
Intellectual property activity, 305
Intellectual property litigation, 281n
Interest rates
mechanisms to mitigate, 160
selection effects from, 159
and supply of venture capital, 38, 60–61
Investment advisors, 9–10
Investment banks
and conflict of interest in IPOs, 6, 351–52
in conflict of interest over venture capital affiliation, 399–401 (see also Venture capital-investment banker affiliation)
and IPO lockups, 423
with venture capital affiliates, 403
Investment Company Act (1940), 519
Investment Dealers’ Digest of Corporate Financing, 488
Investment managers, 71, 80–81
Investment stages, definition of, 153
IPO(s) (initial public offerings), 423
conflict of interest in investment banks’ involvement in, 351–52
of firms backed by venture and buyout firms, 233
increase in (venture backed, 1980s-1990s), 410
and investment banks, 404
and liquidation of venture-capital investments, 111
literature on, 347
robust market for (1990s), 14
timing of, 351, 355, 375–76 (see also IPO timing)
two depictions of, 353
venture-backed (sources of information on), 530–32
for venture-backed firms, 353
and venture capital-investment banker affiliation study, 399, 400, 405–409
venture vs. nonventure, 483
and young vs. old venture capital firms, 351
IPO firms performance, 483–84, 513–14
analysis of, 487–512
and behavioral finance, 485–86
rational asset pricing explanations of, 486–87
underperformance, 483–84, 485–87, 489, 493, 495, 496, 502, 504, 505, 506, 510, 512, 513
for venture vs. nonventure firms, 483, 484–85, 491–93, 495, 507–508, 512–13
IPO lockups, 6, 346, 352, 423–25, 455–56, 461–62
commitment hypothesis on, 424, 427–28, 435, 452, 455
contracts for, 425–26
data sources and sample description in study of, 429–31
determinants of length of, 431, 435–39
early release from, 428
and event-day abnormal return, 444–52, 456
explanations for, 423–24, 426–29
and insider selling prior to lockup expiration, 439–44
search for information on, 456–57
and SEC regulations, 426, 426n
signaling hypothesis on, 424, 426–27, 436–39, 444, 455–56
and underwriters’ additional compensation, 452–55
IPO market
and returns on venture capital, 28
and venture capital commitments, 26, 42
IPO timing, 351, 355, 375–76
and age of venture capital firms, 377
alternative explanations for superiority of established venture capitalists in, 371–74
alternative measures and control variables in study of, 367, 369, 371
and biotechnology industry, 356
and equity valuations, 358–64
and grandstanding, 377, 378–81, 396 (see also Grandstanding)
and investor characteristics, 356
and private financings, 362–63
research on implications of, 376
sample and summary statistics in study of, 356–58
and venture capitalist experience, 364–67, 375–76
IPO volume, and raising of new fund, 56
‘IPO window,’’ 375
Israel
and need for public equity markets, 45
venture capital funds encouraged by government in, 273
venture capital initiatives by government in, 309
Italian commenda, 27
Joint hypothesis problem, 487
Kearns, David, 132, 133
Kemper Financial Services, 381, 385, 520, 521, 522, 531
Laser printer, as PARC (Xerox) development, 131
Late-stage financing, duration of, 193
Late-stage firms, and structure of financing, 183, 186
LBOs. See Leveraged buyouts
Learning model of compensation, 30–31, 93–94, 96
and base compensation, 104, 115
and concentration of profits, 97
derivation of, 115–19
and elasticity of compensation to performance, 108
and relationship between pay sensitivity and performance, 108
Legal environment, and venture capital relation to innovation, 274
‘‘Lemons’’ problem, 159
Leverage, and liquidation value of assets, 175
Leveraged buyout funds, and venture capital funds, 349–50
Leveraged buyouts (LBOs), 67
achieving track record in, 77
boom in (mid-1980s), 70
funds specializing in, 233
and “reverse LBOs,” 375
Limitation on investment, covenants on, 73–74
Limited partnership or partners, 10, 29, 32, 40, 65, 127, 378. See also Partnership agreements
closings of, 522n
and compensation timing, 24–25
vs. corporate venture programs, 31
distribution of shares to, 259n, 459–81 (see also Distribution of shares to limited partners)
as dominant organizational form, 8, 10, 26–27
factors in restrictiveness of, 30
as insiders, 462n
institutional investors in, 378
and investment performance, 151
lifetimes of, 378
and partnership contract, 29–30
recent spread of, 70
Liquidation values, 175, 197
Liquidity constraints on, 176
early IPOs for, 396
price movements at distribution, 467–68
restrictions on, 27
Litigation examination of, 281n
as rough proxy for economic importance, 305
“Living dead,” 23, 228
Lockups. See IPO lockups
Lotus, 1
Management fees. See Fixed fees
Managerial oversight, 166
Manweller, R. L., 1
Market-to-book ratio, 164, 196–97, 211
Market conditions, and financing, 158
“Market myopia,” 165
Market power, 68
Massachusetts concentration of investment activity in, 7, 14, 47, 222n
Middlesex County in (and innovation), 275, 279, 281–82, 283, 305
Route 128 region, 229–30, 273
SBIR awards to, 6, 320, 323
in SBIR awards analysis, 340
size of venture pools in, 230
“Matched model” approach, 215
Mead Data Central, databases of, 243
Measure of equity market values, 211
Memorex, 129
Microsoft, 1, 200
Million Dollar Directory, 526
ML Venture Partners II, 403
Monitoring, 7, 160, 161
and agency costs, 187
and assets, 197
by banks, 163
capital infusions for, 183
and CEO turnover, 246
costs of, 69
distribution of shares, 461
of high-tech companies, 70
intensity of, 196
and investment structure (future research), 197
and replacement of top manager, 166
and sale of general partners’ interests, 75–76
and staging, 161, 171, 172–76
venture capitalist specialization in, 178, 181
Moody’s stock guides, 334
Moral hazard, 352, 423–24, 427, 455
Mouse, computer, 131
Multiple closings, 211n
Multiple distributions, 466–67
Multiple funds, covenants on, 74
Mutual funds, 4, 38–39, 350
Naïve investor hypothesis, 351, 400, 404, 405, 410, 421–22
National Science Foundation (NSF)
case studies by, 342
and innovation study, 275, 279, 285
and SBIR awards, 328
and Survey of Research and Development Expenditures at Universities and Colleges, 47
and Survey of Research and Development in Industry, 47
Neuer Markt (Germany), 346
New public offerings, in history of corporate venture funds, 129
Newton, John, 135
New venture capital firms. See Young venture capital firms.
New York, investing activity in, 47
North Carolina Biotechnology Center (NCBC), 242, 528

Office of Technology Assessment, U.S., 242
Older firms
and round of investment, 226
and staging, 187
valuation of, 221

Older venture organizations. See also Reputation
and compensation, 98, 100, 104, 114
and covenants, 71
and demand for services, 81
Omitted variable bias, 231, 233–36
Opportunistic behavior, difficulty in identifying, 72
Organizational crisis, and need for monitoring, 246
Organizational structure, 32
and corporate performance, 151 (see also Corporate venture programs)
and investment performance, 127
limited partnership, 10, 26–27, 29, 29–30, 65, 378 (see also Limited partnership or partners)
of Xerox Technology Ventures, 133
Oversight role of venture capitalists, 241, 251
avenues for further investigation in, 251, 254
and determinants of board membership, 241–49
and geographic proximity, 241, 249–51

Palo Alto Research Center (PARC), 131–32, 163
ParcPlace, 132
Partnership agreements, 65. See also Covenants; Limited partnership or partners and compensation, 91 (see also Compensation)
as control on venture capitalists, 29
and distribution of shares, 466n
and limited partnerships, 29 (see also Limited partnership or partners)
reduction on restrictiveness of (1990s), 14
sources of information on, 519–24
study of, 65, 72–73
Partnership contract, 29–30
Partnership structure, 152
Patent production function, 289
Patents and patenting
and biotechnology, 371, 528–29
increase in number of, 516, 517
and legal environment, 274
surge of, 62
and venture backing, 168, 274, 338
Pay-for-performance sensitivity, 31, 69n, 80, 93, 94, 95–96, 96, 97, 104, 106–108, 161n
Pennsylvania Railroad, 256
Pension funds
and capital gains tax, 62
as primary capital source, 42
and prudent-man rule, 37, 45, 298, 356
“window dressing” by, 255, 258
Percentage of profits, compensation as, 97–101
Performance of firm. See Firm performance
Performance of IPO firms. See IPO firms performance
Performance of venture capitalist, and compensation, 69, 80, 93, 94, 96, 97, 106–108
Performance of venture organization and fund-raising, 57
proxy for, 40
in raising capital, 378
“Phantom stock,” 134
Pharmaceutical industry, 215
Poison pill, 163
Policy measures, and venture capital, 63
Portfolio diversification, in prudent-man rule, 37
Post-money valuation, 142, 142n
Powersoft, 380
Pratt, Stanley, 521
Pratt’s Guide to Venture Capital Sources, 242, 250, 251, 260n, 369, 407, 529, 532
Pre-money valuation, 141, 142n, 207n
Price-earnings ratios, 211
Pricing studies, 215
Primark’s Cleansed Insider Data Files, 440
Prime Computer, 77n
Private Equity Analyst, 40, 211
Private equity firm, 26. See also Venture capital organizations
Private equity funds, 23–24
and venture capital, 3n
Private equity partnership agreements, 23, 27.
See also Partnership agreements
Private equity pool, 516n
Private markets, and relation of asset prices to demand shifts, 201
Profit sharing, 127
and corporate funds, 130
Prudent man rule of ERISA and commitments to venture capital industry, 45
1979 changes in by Department of Labor, 8–9, 33, 37–38, 49, 60, 297–98, 298
and raising of new fund, 55, 57
Public finance theory, on subsidies, 314
Public programs (worldwide) and economic growth, 309
venture capital funds encouraged by, 273
Public policy questions, and shifts in capital inflows, 239
Public subsidization of small firms 168, 309–13
empirical implications of (high-tech firms), 315–18
political distortion of, 315
and Small Business Innovation Research program, 318–42 (see also Small Business Innovation Research program)
theoretical motivations of (high-tech firms), 313–15

Railroad sidetrack agreements, 70n
Rational asset pricing models, 486–87
Rational discounting hypothesis, 351–52, 400, 404, 405, 414, 416, 421–22
Raychem, 129
R&D (Research and Development) and amount of financing, 196, 197
and corporate venture funds, 130, 152
and federal funding, 321
in innovation study, 284, 285, 287, 291, 300–302, 303
and monitoring, 172
and state-level venture capital activity, 49, 62
and venture capitalist’ approach, 307
R&D spillovers, 314. See also Spillover problems
Real estate market, and impact of fund flows on valuations, 239
Recombinant Capital, 251, 528, 529
Recycling hypothesis, 396
Regeneron Pharmaceuticals, 403
Regional differences in geographic proximity of venture capitalists, 254
in SBIR impact, 328–35, 341
in subsidy impact, 316
Regions, definition of, 154
Regulatory capture, theory of, 315
Regulatory policies and venture capital commitments, 28–29
and venture fund-raising, 62, 63 (see also Prudent man rule of ERISA)
Reinvestment of profits, covenant on, 74–75
Reputation as commitment device, 428
and covenants, 69
in going-public process, 425
and grandstanding, 377, 378–81 (see also Grandstanding)
and IPO timing, 365
as motivation, 114
and new commitments, 39
and opportunistic behavior, 72
and pay sensitivities, 93–94n
and raising capital, 56, 63, 377–78, 378, 380
and risk aversion, 271
and venture capital-investment banker affiliation study, 408, 414, 416, 417
and young venture capital firms, 351
Research agendas on compensation, 115
on corporate venture programs, 152
on government policy, 26
on grandstanding, 397–98
on impact of capital inflows, 239
on innovation promotion, 307
on IPO lockups, 456
on IPO timing, 376
on public venture capital programs, 342
on staging of venture capital investment, 199–200
on supply and demand in determining contractual forms, 90
on syndication questions, 271
on underperformance of small growth companies, 514
on venture capital fund-raising, 25–27
on venture capital investing, 169
on venture capitalists and decision to go public, 354
on venture capitalists’ oversight, 251, 254
Research and development. See R&D
Restrictions, 29
Returns, calculation of, 40
“Reverse LBOs,” 375
Review of approvals, syndication as, 257
Risk, 162
and contracts, 162
in signaling model, 95–96
Risk aversion
and reputation, 271
and syndication, 260
Ritter, Jay, 487–88
“Road shows,” 56, 423
RogersCasey Alternative Investments, 531
Rolm, Xerox investment in, 132
Route 128 region. See also Massachusetts
in Middlesex County, 282
and SBIC, 273
venture capitalists concentrated in, 229–30
SBICs. See Small business investment
companies
Scholes, Myron, 201
Scientific Data Systems, 129
Screening mechanisms, 160
SDC. See Securities Data Company
SEC. See Securities and Exchange
Commission
Secondary markets, in European nations, 345
“Second opinion” hypothesis, on syndication, 167
Securities Acts (1933, 1934), 256, 401
Securities Data Company (SDC)
Corporate New Issues database of, 112, 365,
372, 373, 429, 468, 529
sample IPOs from, 453
Venture Economics as unit of, 520, 527 (see
also Venture Economics)
Securities and Exchange Commission (SEC),
256, 402, 424, 459, 528, 529
Security Exchange Act (1934), 426n
Seed-stage funds, 51
Selection problems, and asymmetric
information, 158
Shao, Howard, 135
Sierra Ventures, 40
Signaling, and grandstanding, 379, 381, 397
Signaling hypothesis on IPO lockups, 424,
426–27, 436–39, 444, 455–56
Signaling model of compensation, 31, 94–97
and base compensation, 104
derivation of, 119–23
and elasticity of compensation to
performance, 108
and relationship between pay sensitivity and
performance, 108
Silicon Valley. See also California
and SBIC program, 273
and SBIR program, 6
venture capitalists concentrated in, 229
Singapore
government venture capital initiatives in,
309
and need for public equity markets, 45
venture capital funds promoted in, 273
Small Business Administration (SBA), 314,
318
Small Business Innovation Development Act
(1982), 318
Small Business Innovation Research (SBIR)
program, 168, 309, 313, 318–20, 341–42
challenges to evaluation of, 320–22
and choice of successful firms, 317
construction of data set on, 322–24
and impact of subsidies, 316, 324–28
industry patterns in, 336
number of awards in, 337
political pressure hypothesis on, 315, 318–
19, 328, 333, 333–34
regional variation in impact of, 328–35,
341
and venture capital financing, 338–40
Small business investment companies (SBICs),
8, 40, 123, 273, 464, 520, 526
Social rate of return, 314
to R&D, 341–42
Social welfare
and concentration in venture capital
investment, 169
and exiting of venture capital investments,
346
and government programs, 313
Sources of information, 519
on venture-backed IPOs and distributions,
530–32
on venture capital investments, 525–30
on venture capital partnership agreements,
519–24
Spillover problems, 314, 316, 319–20, 342
Stage focus results, 57, 59–60
Staging of venture capital investment, 160–
61, 164, 171–72, 199
and agency or monitoring costs, 172–76
and liquidity, 176
and overinvestment, 176–77
structure of (agency theory), 171, 177–97
Index

Staging of venture capital investment (cont.)
structure of (alternative explanations), 197–99
and venture partnership agreements, 124
Standard and Poor's Register of Corporations,
Directors and Executives, 242–43
Start-ups
and capital inflows, 215
funds specializing in, 260n
and inability to verify outcomes, 159
in innovation study, 293n
relationship among sources of capital for, 200
and VentureOne, 525
State-level venture activity, 46–51
Stock grants, 161
Stock market crash (1929), 401
Stock market crash (1987), 129, 345
Stock options, 161
Strategic focus or orientation, 31, 128, 151, 152
Strategy, as important, 32
Structure of financing. See Staging of venture
capital investment
Structure of venture partnerships, 26, 32, 127.
See Covenants; Limited partnerships or partners; Organizational structure
Subsidies. See Public subsidization of small firms
Substitute financing, supply of, 60–61
empirical implications of, 70–72
Success of investments, by corporate vs.
independent organizations, 140–45
Supply and demand hypothesis on covenants, 67, 68, 68n
and changes in equity holdings across
venture rounds, 267–68
and earlier analyses, 90
and future investigations, 90
later-round in promising firms, 268–70
partners for in first and later rounds, 261–67
and regression-analysis results, 85, 87
and restrictions in covenants, 81, 83
sample for analysis of, 260–61
Supply of venture capital
and covenants, 29, 30, 67, 80
shifts in, 165
and short-run shocks, 4
of substitute financing, 60–61, 70–72
in venture capital fund-raising, 25, 33, 34–35, 45
Syndication of investment, 166–67, 255–57, 271
and agency conflicts, 160
and decision to invest, 7
lead investor in, 382
lead venture capitalist as older, 364
rationales for, 255–56, 257–60
TA Associates, 261
Taiwan, government venture capital initiatives in, 309
Taxation. See Capital gains tax rates
Tax motivation, for distribution of shares, 462
Technological breakthroughs (innovation).
See also at Innovation
and new entrants, 149
and shifts in capital inflows, 239
Technological opportunities changes in, 62
in innovation study, 303
Termination of projects, as venture capitalists’ concern, 197. See also Grandstanding; IPO(s)
Texas, investing activity in, 47
Timing of IPOs. See IPO timing
“Tombstones,” 365
Trading volume, and informed insiders, 480
Transparency, industry variation in, 316
Treasury bill return, and probability of raising
new fund, 56
Turnover of chief executive officer. See Chief executive officer turnover
Uncertainty
decision-making under, 485
in entrepreneurial efforts, 157–58
and private equity funds, 24
and syndication, 255
and venture financing, 199
Underperformance of IPO firms, 483–84,
485–87, 489, 493, 495, 496, 502, 504, 505, 506, 510, 512, 513
Underpricing, 381, 384, 392–94, 396, 405, 416
as attraction for investors, 355
as IPO cost, 379
and venture capital-investment banker affiliation study, 409, 410, 416–17
Underwriter lockups. See IPO lockups, 455
Unit offerings, 365
Universal banking, 399, 422
debate over, 401–402
venture capital as testing ground for, 402–405
Unrelated business taxable income (UBTI), 74n
U.S. Department of Labor, 9, 33, 37, 60, 274, 297, 298. See also Prudent man rule of ERISA
U.S. firms, high-tech leadership of, 168
U.S. Office of Technology Assessment, 242
US WEST Investment Trust, 531

Valuation
and capital inflows, 201, 202 (see also Capital inflows-security prices relation)
post-money, 142, 142n
pre-money, 142, 142n, 207n
Value of firm, 204
‘Value’ strategies, 485
Variance, and lower returns, 271
Venture-backed IPO firms. See also IPO firms performance
vs. nonventure firms in performance, 483, 484–85, 491–93, 495, 507–508, 512–13
sources of information on, 530–32
Venture board membership. See Board membership
Venture capital, 17
confusion over meaning of term, 26n
and foreign markets, 17
history of, 6–7, 8–17
and innovative activities, 5–6
vs. other financial assets, 17
and private equity funds, 3n
returns to, 28
slow adjustment in supply of, 4
Venture capital cycles, 5, 130, 176. See also Venture cycle
in future, 515–17
Venture capital financing. See Venture capital investing
Venture capital fund-raising, 23–25
factors influencing, 28
and public equity markets, 25–26
research related to, 25–27
run-up in, 32
Venture capital fund-raising, determinants of, 33, 62–63
and aggregate fund-raising results, 39–46
alternative investment expected return, 38
capital gains taxes, 33, 36–37, 42, 62 (see also Capital gains tax rates)
and changes in technological opportunities, 62
firm-level analysis of, 51–60
firm performance, 38–39
interest rates, 38, 60–61
and measurement of expected GDP, 61–62
and “prudent man rule” clarification, 37–38
(see also Prudent man rule of ERISA)
recent IPO performance, 390
reputation, 56, 63, 377–78, 378, 380
and state-level venture activity, 46–51
and substitute financing supply, 60–61
supply and demand, 25, 33, 34–35, 45
Venture capital funds
compensation timing of, 24–25
persistence of results for, 349
and public market, 354
and public policies, 17
public programs to encourage, 273
total amount of, 7
Venture capital industry, 7–8, 517
boom in, 5, 515
checks and balances in, 3
cyclical nature of, 130 (see also Venture capital cycles)
future of, 17, 515–17
growth of, 1
growth in-staging structure relation in, 193
and supply or demand shifts, 4
Venture capital investing
banks contrasted with, 163
and contracts, 162
and control rights, 162
and controls on compensation, 161–62
and corporate governance, 162
and financing difficulties for entrepreneurs, 157–60
and innovation, 167–68, 168
and managerial oversight, 166
and monitoring, 161
observation of returns from, 35
and other sources of financing, 200
returns of, 350
and SBIR awards, 338–40
and securities’ valuations, 165–66
and social-welfare effect of “herding,” 168–69
sources of information on, 525–30
staging of, 124, 160–61, 164, 171–72, 199
(see also Staging of venture capital investment)
Venture capital investing (cont.)
syndication of, 166–67, 255–57, 271 (see
also Syndication of investment)
and valuation discounts, 162
and venture, 165, 176
Venture capital-investment banker affiliation,
399–401, 421–22
empirical results in study of, 407–21
IPO sample in study of, 405–407
and universal banking debate, 401–402
and venture capital as testing ground for
universal banking, 402–405
Venture capitalists
additive vs. multiplicative functions of, 116
adjustment in number of, 4
on boards of directors, 166, 484
difficulty in estimating ability of, 114
diverse backgrounds of, 98
geographic concentration of, 229–30
increased rate of investment by, 14
measuring experience of, 79n
misperceptions of, 1–2
performance and compensation of, 69, 80,
93, 94, 96, 97, 106–108
as specialists, 299
and timing of IPOs, 355
young capitalists’ grandstanding, 377 (see
also Grandstanding)
Venture Capital Journal, 40, 405, 487, 527, 531
Venture capital limited partnerships. See
Limited partnership or partners
Venture capital market, 19
effects of growth of, 187
size of, 18
Venture capital organizations, 32
affiliated with investment banks, 351 (see also
Venture capital-investment banker
affiliation)
and informational asymmetries, 314 (see also
Informational asymmetries), 45
multiple offices of, 46
in response to increase in investments, 213–
14
structure of, 26, 32, 127 (see also Covenants;
Limited partnerships or partners; Organizational structure
young vs. old, 351
Venture capital partnership agreements. See
Partnership agreements
Venture capital pool
increase in (1978–1990), 356
increase of (1980–1993), 464
Venture capital and security prices. See
Capital inflows-security prices relation
Venture capital syndications. See Syndication
of investment
Venture capital and technological innova-
tion. See Innovation, venture capital as
spur to
Venture cycle, 3–4, 165. See also Venture
capital cycles
Venture Economics, 39, 277, 520–21
on age of firms, 371
closed partnerships identified by, 464
and computing of returns, 462
on corporate venture efforts, 130
and correlation of returns and market value,
354
database of, 39–40, 46, 79, 80n, 81, 242,
250, 251, 323, 328, 365, 369, 384, 406,
468, 521, 522–23, 532
and disbursements, 277
on fund focus, 57
Fund Raiser Advisory Service of, 521, 531
on fund returns, 104, 106, 349
and geographic proximity, 250
in innovation study, 283
Investment Benchmark Reports of, 522
investment classifications of, 187
Investors Services Group of, 177, 521, 522,
526
and measures of venture funding, 275
memoranda in files of, 111
methodology of, 211n
on new funds, 382
offering documents in files of, 405
partnership agreements collected by, 520,
522, 524
private placement memoranda of, 531
on stage of development, 183
study of on returns, 40
unpublished records in files of, 407
Venture Capital Journal of, 111, 405
Venture Intelligence Database of, 177, 260,
356, 527–30
Venture factoring, 3n
Venture leasing, 3n
Venture limited partnerships. See Limited
partnership or partners
VentureOne database, 128, 136–37, 140,
202, 205, 205n, 207, 210, 236–37, 323,
525–27
Venture organization performance. See
Performance of venture organization
Venture organization size
and grandstanding, 377 (see also Grandstanding)
and reputation, 56
Venture partnerships, 10, 14. See also Limited partnership or partners
Venture partnerships, structure of. See Covenants; Limited partnership or partners; Organizational structure
Vesting schedule, of general partnership interests, 76
Vintage effect, 145

Waugh, Frederick, 217
Wealth effect, 163
Weibull distribution, 190, 198
West Coast, and early- vs. later-stage funds, 59. See also California
“Window dressing,” 255, 258, 268, 271

Xerox Computer Services, 131
Xerox Corporation, 131, 163
Xerox New Enterprises (XNE), 136
Xerox Technology Ventures (XTV), 128, 131–36

Young (new) venture capital firms
“grandstanding” by, 23, 377, 379 (see also Grandstanding)
and IPOs, 351, 390
Yozma initiative, 273

“Zombies,” 23